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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/600,590	07/19/2000	BERNARD ASPAR	025219-268	5219

7590 07/11/2003

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EXAMINER

KRUER, KEVIN R

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 07/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/600,590	ASPAR ET AL.	
	Examiner	Art Unit	
	Kevin R Kruer	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 02 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17, 19-29 and 31-34 is/are pending in the application.
- 4a) Of the above claim(s) 2-12 and 25-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1, 13-17, 19-24, 29 and 31-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 17 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 contains the phrase "non-homogeneities able to relax stresses." How does one of ordinary skill in the art determine that a non-homogeneity is able to "relax stresses?" How does one determine "non-homogeneity?"

Claim 20 is indefinite because it is unclear how one of ordinary skill in the art is suppose to determine if such an element "promotes the compliance of said substrate."

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1, 13-17, 19-23, 29, and 31-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Bisaro et al (US 5,414,894) for reasons of record.

Claim Rejections - 35 USC § 103

3. Claims 24 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisaro et al. (US 5,141,894), as applied to claims 1, 13-17, 19-23, 29, and 31-33 above, and further in view of Yamashita (US 3,742,318), for reasons of record.

Response to Arguments

Applicant's arguments filed May 7, 2003 have been fully considered but they are not persuasive.

Applicant argues that Bisaro does not create a layer of microcavities. The examiner initially points out that the claims don't require Bisaro teach a layer of microcavities. The claims also read on embodiments wherein there is a bonding interface whose bonding energy is controlled to permit the absorption of stress. The examiner takes the position that ion implantation will "control" the bonding energy of the bonding interface. Furthermore, the examiner disagrees with applicant's conclusion that microcavities are not created. Bisaro teaches that "the implantation of ions creates anchoring points for the dislocations in a layer which is centered at depth R_p and having a width of $2.35 \times R_p$ (col 3, lines 46+)."

Applicant further argues that Bisaro teaches away from "relaxing" dislocations. The examiner respectfully disagrees with Applicant's interpretation of the reference. Bisaro teaches that the invention "enables a considerable reduction in the number of dislocations spreading in the layer being formed (col 1, lines 65+)." Furthermore, Bisaro teaches "by ion implantation, there are created either anchoring points for the dislocation preventing their spread towards the surface or zones of stresses.... making the fine wafer less stressed and less curved (col 2, lines 14+)."

With respect to claim 13, the examiner takes the position that the implantation of ions is inherently going to modify the surface energy/bonding energy of the interface.

Thus, Applicant's arguments are not persuasive.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

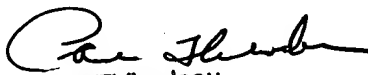
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R Kruer whose telephone number is 703-305-0025. The examiner can normally be reached on MON-FRI from 7:00a.m. To 4:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau, can be reached on (703) 308-2367. The fax phone number for the organization where this application or proceeding is assigned is 703-305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

krk

X-RX-


Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700